

REMARKS

Status of the Claims

Claims 1-8, 10-18, and 21-24 are now present in this application. Claims 1, 2 and 6 are independent.

Claims 1, 2 and 6 have been amended. Reconsideration of this application, as amended, is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-3, 5-8, 11, 12, 15, 16, 18 and 21-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Van Rooij et al., U.S. Patent No. 5,728,021 (hereafter "Van Rooij") in view of Anpo (JP 01-169149). Claims 4, 10, 13, 14, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Van Rooij in view of Anpo and further in view of Zimmer, U.S. Patent No. 4,718,880. These rejections are respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Without conceding to the propriety of the Examiner's rejection, but merely to timely advance the prosecution of the application, as the Examiner will note, independent claims 1, 2 and 6 have been amended to more clearly clarify the present invention, respectively.

In particular, independent claim 1, as amended, includes, inter alia, the recitation of "*...a plurality of links each possessing through holes; a plurality of pins inserted through the through-holes for interconnecting the plurality of links, ... the plurality of pins include plural types of pins having different rigidities in the longitudinal direction thereof... at least one of the plurality of links possesses two through-holes of different configurations respectively corresponding to said plural types of pins having different rigidities.*" Support for this amendment can be found at least in, for example, Fig. 2 and corresponding disclosure of the Specification as originally

filed. Thus, no new matter has been added. Applicants respectfully submit that the above identified features set forth in claim 1 are not disclosed or suggested by the references relied on by the Examiner.

Specifically, as embodied in Fig. 2 of the present application, the pin 3 includes two types of pins 3f, 3h having different rigidities and sectional areas. The through-holes 4f and 4h of the link 2 are configured to correspond to the respective shapes of the greater pin 3f and the thinner pin 3h, respectively. In particular, the greater through-hole 4f penetrated by the greater pin 3f is greater than the thinner through-hole 4h penetrated by the thinner pin 3h. It should be noted that the right and left through-holes in one link 2 have mutually different configurations such as to permit the chain 1 to be circumferentially bent.

The Examiner on page 3 of Office Action relied on Anpo and asserted that Anpo teaches a plurality of types of pins 12a₂, 12b₂, 12c₂, having different areas and rigidities, which cures the deficiency of Van Rooij. However, Applicants respectfully submit that Anpo fails to teach or suggest “*at least one of the plurality of links possesses two through-holes of different configurations respectively corresponding to said plural types of pins having different rigidities*” as recited in claim 1; instead, Anpo actually teaches away from the above features as recited in claim 1.

Referring to Fig. 1 and page 5 of the translation of Anpo provided by the Examiner, the pin hole 11 of the link plate 10b is comprised of an arc-shaped part 11a with a radius of r_0 , which has a value greater than that of the r_1 , r_2 and r_3 (the radius of curvature of the opposing faces of the joint pins 12a₂, 12b₂ and 12c₂, respectively). That is, all of the joint pins 12a₂, 12b₂ and 12c₂ are used with only one type of the link plate 10b. In view of this, it is clear that each link plate of Anpo does NOT have two through-holes of different configurations respectively corresponding to the different configurations of the joint pins 12a₂, 12b₂ and 12c₂.

Therefore, Applicants respectfully submit that Anpo fails to teach or suggest “*at least one of the plurality of links possesses two through-holes of different configurations respectively*

corresponding to said plural types of pins having different rigidities” as recited in claim 1, and thus fails to cure the deficiency of Van Rooij.

In addition, referring to the last paragraph on page 3 of the translation of Anpo, one of the objectives of Anpo is to solve the problem of using multiple types of link plates by using one type of outside link plate into which all joint pins can be press-fitted. The Examiner should note that the Anpo reference requires this feature to obtain the patent; however, it is **contrary to** the above identified features of the present invention. In view of this, Applicants respectfully submit that Anpo clearly teaches away from the above-mentioned features of the present invention.

It is noted that a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *In re Gurley* , 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

In view of the above, Applicants respectfully submit that even if, assuming arguendo, Van Rooij and Anpo were somehow combined as suggested by the Examiner, the combination still cannot achieve the present invention, because in view of the teachings of Anpo, the suggested combination will NEVER have the feature of “*at least one of the plurality of links possesses two through-holes of different configurations respectively corresponding to said plural types of pins having different rigidities*” as required in the present invention.

With regard to the Examiner’s reliance on Zimmer, this reference has only been relied on for its teaching against some dependent claims. It is submitted that Zimmer also fails to disclose the above-mentioned features set forth in claim 1, and thus fails to cure the deficiencies of Van Rooij and Anpo.

Since the references relied on by the Examiner, either taken alone or in combination, fail to teach each and every claimed feature as recited in claim 1, Applicants respectfully submit that claim 1 clearly defines over the teachings of the references relied on by the Examiner.

With regard to independent claims 2 and 6, claim 2, as amended, includes the recitation of *“wherein at least one of the plurality of links possesses two through-holes of different configurations respectively corresponding to said plural types of pins having different sectional shapes or sectional areas”* and claim 6, as amended, includes the recitation of *“wherein at least one of the plurality of links possesses the first and second through-holes of different configurations respectively corresponding to the pins of two or more different widths.”* Applicants respectfully submit that for the same reasons as claim 1, the references relied on by the Examiner, either taken alone or in combination, also fail to teach or suggest the above identified features as recited in claims 2 and 6, and thus claims 2 and 6 also clearly defines over the references relied on by the Examiner.

Additionally, with regard to independent claim 6, Applicants presented arguments in the last Reply of January 21, 2010 that:

Regarding the rejections under 35 U.S.C. § 103(a), the Examiner agreed that if he were able to verify that Fig. 6 was a detailed view of the chain 13, as opposed to some other exemplary embodiment of the belt 50, then Applicants arguments regarding the combinations based on Anpo were persuasive. In particular, during the interview, Applicants provided a partial translation of the references describing the relationship of the belt 50, load blocks 14, and chains 13, as follows:

One embodiment of the transmission belt 50 of the present invention is illustrated in Figs. 2 to 5. The transmission belt 50 includes: two (2) chains 13 which comprise a plurality of links 10; and a number of load blocks 14 attached to the chains 13. Each of the two chains 13 is inserted in a chain-insertion portion situated on each side of the load blocks 14 to form the transmission belt. (See Fig. 5)

and

The transmission belt 50 described above passes around two (2) pulleys 52 and 54 when used, as shown in Fig. 11. The pulleys 52 and 54 comprise fixed conical members 52a and 54a, respectively, and movable conical members 52b and 54b, respectively; thereby forming opposed conical surfaces 32 and 34, and 32' and 34'. Tapered surfaces 14a are provided at both sides of the load blocks 14 so as to be in contact with the conical surfaces 32, 34, 32' and 34' of the pulleys.

Therefore, it is the load blocks 14 that provide the transmission of force and not the pins 12 of the individual chains.

Applicants respectfully submit that the Examiner did **NOT** respond to the above arguments in the outstanding Office Action. Applicants also submit that in view of the above arguments, Anpo fails to teach or suggest “*wherein the first pin is a transmission pin also serving as the chain friction transmission member*” as recited in claim 6. For this additional reason, claim 6 clearly defines over the references relied on by the Examiner.

In addition, claims 3-5, 7, 8, 10-18, and 21-24 depend, either directly or indirectly, from independent claims 1, 2 and 6, and are therefore allowable based on their respective dependence from independent claims 1, 2 and 6, which are believed to be allowable.

In view of the above amendments to the claims and remarks, Applicants respectfully submit that claims 1-8, 10-18, and 21-24 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

Conclusion

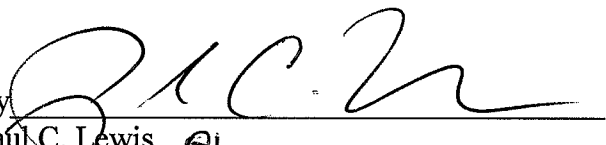

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Paul C. Lewis, Registration No. 43368 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: **July 9, 2010**

Respectfully submitted,

By 
Paul C. Lewis 
Registration No.: 43368
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000